

The invention relates to a pacing system, in particular an implantable pacemaker for pacing multiple chambers of the heart and sensing signals from the myocardium of multiple chambers of the heart which will allow the verification of a cardiac evoked response resulting from a delivered charge to the heart tissue comprising:

a preamplifier having

- a) a DC coupled buffer amplifier first stage, comprising at least one buffer amplifier for each of the at least two electrode inputs,
- b) a switch matrix following the buffer amplifiers allowing sensing of the differential between any two of the at least two electrode inputs,
- c) a next stage of differential amplifiers providing gain to either the differential between any two electrode inputs or one input to ground, and
- d) a next stage filter stage.